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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RISTO KALLINEN

Appeal 2014-009938
Application 13/137,262
Technology Center 1700

Before CATHERINE Q. TIMM, BEVERLY A. FRANKLIN, and ELIZABETH M. ROESEL, *Administrative Patent Judges*.

ROESEL, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant[1] appeals under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 1–4, 12, and 14. We have jurisdiction under 35 U.S.C. § 6(b).[2]

We AFFIRM.

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[1] Airbus Operations Limited is identified as the real party in interest. App. Br. 4.

[2] In our opinion below, we reference the Specification filed August 2, 2011 (Spec.), Final Office Action mailed June 4, 2013 (Final Action), the Appeal Brief filed February 24, 2014 (Appeal Br.), the Examiner's Answer mailed July 11, 2014 (Ans.), and the Reply Brief filed September 9, 2014 (Reply Br.).

STATEMENT OF THE CASE

Claimed Invention

Appellant claims a method of manufacturing a composite laminate panel. App. Br. 22, 23 (claims 1 and 14). Such panels may be used to form the wing, empennage, or fuselage of an aircraft. Spec. 1:8–18.

Claim 1 is illustrative of the subject matter on appeal and is reproduced below from Appellant's Claims Appendix:

> 1. A method of manufacturing a composite panel, the method comprising:
>
> fitting a control member through the panel;
>
> fitting a plug through a compaction tool;
>
> controlling thickness of said compacted panel by engaging the control member with the plug;
>
> engaging the plug with a datum surface of the compaction tool;
>
> compacting the panel with the compaction tool; and
>
> disengaging the plug from the control member after the panel has been compacted.

App. Br. 22.

References

Perko	US 4,875,966	Oct. 24, 1989
Marshall	US 5,141,690	Aug. 25, 1992
Phillips	US 6,644,641 B2	Nov. 11, 2003
Rajabali	WO 03/011594 A1	Feb. 13, 2003

Rejections

The Examiner maintains the following rejections:[3]

[3] A rejection under 35 U.S.C. § 112, first paragraph is withdrawn. Ans. 2.

1. Claims 1, 3, 4, and 14 under 35 U.S.C. § 103(a) as unpatentable over Perko in view of Marshall. Final Action 3–5.

2. Claims 1, 2, and 12 under 35 U.S.C. § 103(a) as unpatentable over Rajabali in view of Phillips and Marshall. Final Action 5–6.

ANALYSIS

Appellant presents the same arguments against each ground of rejection and does not argue any claim separately from the others. *See* App. Br. 11–20. We select claim 1 as representative for deciding the issues raised by Appellant's arguments. These issues are: (1) whether the Examiner errs in finding that Marshall teaches using a control member to control the thickness of a composite; and (2) whether the Examiner's reason for combining Marshall with the other cited references is merely conclusory. We address each of these issues below.

Marshall

The Examiner finds that Marshall discloses a method of making a composite, wherein a control member 3 is used to define the thickness of the composite. Final Action 3 (citing Marshall 4:1–39, Figs. 1, 2). The Examiner additionally finds that the control member 3 controls the thickness because the thickness of the panel cannot be any greater than the length of the control member 3. *Id.* at 3–4.

Appellant argues that the Examiner's findings are erroneous because the thickness of Marshall's composite will vary as a function of the compressibility of a rubber sheet and nylon film located between the mold parts. App. Br. 12. According to Appellant, Marshall's needles 3 (which

the Examiner identifies as a control member) do not define the thickness of the composite. *Id.*

We are not persuaded that Appellant identifies error in the Examiner's findings. We agree with the Examiner that, regardless of the compressibility of Marshall's rubber sheet and nylon film, the thickness of Marshall's composite cannot be greater than the length of needles (control members) 3. Final Action 3; Ans. 2–3. The Examiner's finding is supported by Marshall's disclosure of a first embodiment, as shown in Figures 1 and 2, and a second embodiment, as shown in Figure 3. Both embodiments have a plurality of needles 3 extending from mold part 1 toward mold parts 7 and 2. Marshall 1:61–62, 2:35–49, 4:1–7. In the first embodiment, nylon film 11 and rubber sheet 12 are laid over needles 3, and the needles press against the resilient material to form indentations. *Id.* at 2:40–43, 4:12–14, 4:65–68, Figs. 1, 2. In the second embodiment, mold part 7 has indentations designed to cooperate with the needles 3. *Id.* at 2:38–40, 4:32–39, Fig. 3. In both embodiments, fibers are laid in the mold around needles 3, and resin is injected in the mold under vacuum and then cured. *Id.* at 4:1–20. These disclosures support the Examiner's finding that the length of Marshall's needles 3 set an upper limit on the thickness of the composite. Ans. 2–3. We also agree that setting such an upper limit is sufficient to teach "controlling thickness," as recited in claim 1. *Id.*

In the Reply Brief, Appellant argues that "if the mold parts are not fully together, the gap will be greater than the length of the needles and therefore the thickness of the resultant composite will be greater than desired." Reply Br. 3. Appellant's argument poses a hypothetical situation that is not consistent with Marshall. Marshall teaches that the mold parts are

pressed together such that the needles either form indentations in the resilient material (nylon film 11 and rubber sheet 12) or cooperate with indentations in mold part 7. Marshall 2:38–43, 4:12–14, 4:32–39, 4:65–68, Figs. 1–3. Accordingly, the Examiner is correct that the thickness of the molded composite cannot be greater than the needles, which form perforations passing entirely through the composite. *Id.* at 2:35–38.

Appellant additionally argues that, if Marshall's mold parts 2 and 7 are "extended downwardly more than they should be," then the needles (control members) 3 will be pushed into the resilient material (nylon film 11 and rubber sheet 12), "making the composite part thinner than is desired." Reply Br. 3. Similarly, Appellant argues that, in Marshall, the space between the mold parts will vary because the needles contact the compressible nylon and rubber sheets with varying amounts of force. Reply Br. 6. Appellant's arguments do not persuade us of error in the Examiner's finding that, in Marshall, the length of needles 3 sets an upper limit on the thickness of the composite part. Ans. 2–3. At best, Appellant's arguments show that Marshall's composite may be thinner than the length of needles 3, which does not identify error in the Examiner's finding that Marshall teaches using needles 3 as control members to control thickness. Final Action 3; Ans. 2–3. Appellant's arguments are not persuasive for the additional reason that they fail to address Marshall's alternative embodiment having indentations in mold part 7 in lieu of rubber sheet 12. Marshall 2:38–40, 4:32–39, Fig. 3.

Reason to Combine

The Examiner finds that Perko teaches all elements of claim 1, except that Perko does not disclose that the control member controls the thickness

of the panel. Final Action 3. The Examiner concludes that it would have been obvious to modify Perko such that the control member controls the thickness of the panel, as taught by Marshall. *Id.* at 4. As a rationale, the Examiner states that this modification would enable one to form a panel of a desired thickness. *Id.*

Appellant argues that the Examiner's statement is merely conclusory and has nothing to do with reasons why one of ordinary skill in the art would pick and choose features from the cited art and combine them in the manner of claim 1. App. Br. 15.

We are not persuaded that Appellant's argument identifies reversible error in the Examiner's rejection. Although Appellant labels the Examiner's reasoning as "merely conclusory," the same can be said for Appellant's argument. Appellant does not challenge the substance of the Examiner's reasoning, namely that a person of ordinary skill in the art would have desired to form a panel of a prescribed thickness. Nor does Appellant contest that such a desire is applicable to a method of manufacturing a composite panel, as disclosed by Perko. To the extent that Appellant elaborates or explains its position, it relies on the same argument addressed above, namely that Marshall does not disclose a control member that controls the thickness of the panel. App. Br. 15; Reply Br. 7–8. We are not persuaded by this argument for the reasons discussed above.

CONCLUSION OF LAW AND DECISION

We are not persuaded that Appellant identifies reversible error in the Examiner's rejections. *In re Jung*, 637 F.3d 1356, 1365 (Fed. Cir. 2011) ("[E]ven assuming that the examiner had failed to make a prima facie case,

the Board would not have erred in framing the issue as one of 'reversible error.'").

The decision of the Examiner rejecting claims 1–4, 12, and 14 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a) (1).

AFFIRMED